

particularly, the invention relates to an analyzing unit, an inspecting system and a manufacturing method using the inspecting system, which efficiently classify images obtained as a result of inspection of devices being manufactured, to thereby shorten the analysis time required to detect a failure on the production line and to enable enhancement of manufacturing efficiency and a rapid yield ramp-up.

Please delete the paragraph on page 3, lines 15-27, and enter the following replacement paragraph therefor.

For achieving the aforementioned objects, according to the present invention, there is provided an inspecting system comprising an analyzing unit, said analyzing unit including an image detection device for photographing a plurality of images of a workpiece; a storage means for storing images produced by said image detection device; and a display means having a first area for displaying a plurality of the images that are stored in said memory means and a plurality of second areas for classifying said detected images according to features of said detected images; wherein said plurality of detected images can be moved on a screen from said first area to corresponding second areas to classify said plurality of detected images in said second areas.

Please delete the paragraph spanning page 11, line 19 through page 12, line 18, and enter the following replacement paragraph therefor.

Next, a defect image 402 which is to be indicative of the characteristic of the classification area 152 is moved from the unclassified image display area 151 to serve as a typical defect image for the classification area 152, as shown in FIG. 7(a)

(Step 307). For example, a typical defect image 402 present in the unit classified image display area 151 is clicked by a mouse and moved to the classification area 152 by a drag and drop operation. In this case, in the area category information shown in FIG. 7(b), a moved defect image IMG001 is described in the column of the area coordinates (000160, 000020) (000220,000100), as category "white."

Alternatively, it is possible that the actual defect image is not moved from the unclassified image display area 151, but that a schematic image is displayed instead. In this case, a plurality of schematic images as desired are produced in advance, and the thus produced images may be introduced as typical defect images in respective classification areas. Alternatively, also, the typical defect image or images need not be displayed on the respective classification areas, but text information representative of the features may be displayed.

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Please delete the paragraph spanning page 12, line 22 through page 13, line 4, and enter the following replacement paragraph therefor.

Similarly, the other classification areas 153, 154, 155 are defined, as shown in FIGS. 9(a) and 9(b), and unclassified defect images which are similar to a particular typical defect image are classified from the unclassified image display area 151 to the classification areas 152, 153, 154, 155, whereby the classification operation with respect to all the defect images is carried out. FIG. 10 is a display screen showing the classification results. While in this case, four different classification areas were provided for the classification operation, it is noted that the contents and the number of the categories may be changed as necessary.

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Please delete the paragraph at page 15, lines 7-14, and enter the following replacement paragraph therefor.

Next, the display/analyzing device 203 obtains the detected result shown in FIG. 4 from the storage unit 202 and displays the detected defect image on the unclassified image display area 151 (Step 1201). The processing up to the point where the display/analyzing device 203 displays the detected defect image on the unclassified image display area 151 is similar to that of the example previously mentioned, and so a repetition of the detailed description is omitted.

Please delete the paragraph at page 15, lines 15-19, and enter the following replacement paragraph therefor.

Next, the automatic classification starts on the defect image displayed on the unclassified image display area 151 (Step 1202). That is, a category in which the feature of each defect image falls is calculated on the basis of the function stored in the image detecting device 201 (Step 1203).

Please delete the paragraph spanning page 15, line 20 through page 16, line 3, and enter the following replacement paragraph therefor.

When the category is calculated, the defect image is moved to the corresponding classification area on the display screen on the basis of the aforementioned area attribute information (Step 1204). FIG. 15 is a view showing a display screen after such movement. With respect to a defect image that cannot be subjected to image processing according to the detected conditions leading to failure to obtain the necessary features, or a defect image which does not fall under any

87 category, the defect image is moved from the unclassified area to a specific classification area manually in the manner described previously using a mouse or a keyboard for effecting the classification operation.

Please delete the paragraph at page 16, lines 4-17, and enter the following replacement paragraph therefor.

88 In the case where the classification for all the images is completed (Step 1205), the classified result is confirmed (Step 1211), and whether or not the classified result is to be corrected is judged by examination of the screen (Step 1212). The correction of the classified result is shown in FIG. 15. In FIG. 15, in the 89 case where a defect image A is corrected in category by transferring it from a classification area 155 to a classification area 153, for example, the defect image A present in the classification area 155 is clicked by a mouse (Step 1206) and moved to the corresponding classification area 153 by a drag and drop operation, thus enabling easy correction of the classified result (Step 1209). Alternatively, in the case where no corresponding category is present, a category may be newly added (Step 1208).

Please delete the paragraph spanning page 17, line 16 through page 18, line 2, and enter the following replacement paragraph therefor.

90 In analyzing the classified results, an applicable classified result is obtained from the storage unit 202 in the display/analyzing device 203. FIG. 16 shows one example of the analyzing screens thereof. Numeral 1601 designates a position of the detected defect image obtained from the classified results shown in FIG. 11,